

Notice of Allowability

Application No.

10/782,122

Applicant(s)

GLUKHOY, YURI

Examiner

Art Unit

Johnnie L. Smith II

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 02/18/2004.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☒ The drawings filed on 18 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>0218</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Allowable Subject Matter

2. Claims 1-33 are allowed.

3. The following is an examiner's statement of reasons for allowance: the prior art searched and cited failed to teach or fairly suggest an ionization device for ionization of particles in the form of a flow in a direction of propagation of said particles having at least one hollow cylindrical body having a central longitudinal axis and a longitudinal slit having a length, said flow of said particles coinciding with said central longitudinal axis and a source of electrons located outside said at least one hollow cylindrical body to form an electron beam directed onto said flow of particles through said longitudinal slit in the direction perpendicular to said direction of propagation in combination with the remaining elements of claim 1.

Claims 2-9 are allowable because of their dependencies. The prior art searched and

cited failed to teach or fairly suggest an ionization device for ionization of particles in the form of a flow in a direction of propagation of said particles having at least three concentric hollow cylindrical bodies comprising an inner hollow cylindrical body, an intermediate hollow cylindrical body, and an external hollow cylindrical body; at least one longitudinal slit in each of said three concentric cylindrical bodies, said at least one longitudinal slit of each of said three hollow cylindrical bodies being aligned with the positions of said at least one longitudinal slit in other of said three concentric hollow cylindrical bodies of said plurality; and a source of electrons located outside of said external cylindrical body in alignment with said at least one longitudinal slit for forming an electron beam directed onto said flow of particles through said at least one longitudinal slit in the direction perpendicular to said direction of propagation in combination with the remaining elements of claim 10. Claims 11- 25 are allowable because of their dependencies. With respect to claim 26, the prior art searched and cited failed to teach or fairly suggest the claimed method for ionization of particles in the form of a flow in a direction of propagation of said particles, said particles having different velocities, composition, and masses, said method having steps of: providing an ionization device for ionization of said flow of particles by means of a beam of electrons directed onto said flow of particles, said electrons having energy, said flow of

particles having a longitudinal axis that coincides with said direction of propagation, said beam having a focus on said longitudinal axis, said ionization device having a length in said direction of propagation, and a zone of ionization which has a length and is located on said longitudinal axis; and providing a single-event ionization substantially of each of said particles by adjusting said length of said zone of ionization from said lengths of said ionization device to a part of said length of said ionization depending on said velocities, compositions, natures, and masses of said particles. Claims 27-33 are allowable because of their dependences.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents 6,649,907 (Ebeling et al), 6,040,574 (Jayne et al), 6,809,318 (Krutchinsky et al), 6,410,915 (Bateman et al), 6,629,508 (Dykstra), 6,593,570 (Li et al), and 5,382,794 (Downey et al). All of the cited US patents contain art similar to that being claimed by applicant, more specifically, methods and apparatuses for transmitting ion for mass spectroscopy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L. Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Johnnie L. Smith II

Johnnie L Smith II
Examiner
Art Unit 2881



NIKITA WELLS
PRIMARY EXAMINER 06/23/05